S/203/63/003/002/027/027
D207/D307

AUTHOR: Korchak, A.A.

TITLE: Polarization of synchrotron radiation in a dipole magnetic field

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 2, 1963, 394-396

TEXT: The polarization of synchrotron radiation in a dipole magnetic field is discussed theoretically for the following electron energy distribution

$$N(E,r_c,\theta,\alpha) = KE^{-\gamma} \exp - (q/a)^2 (r_e - r_o)^2 k(n)h^{-n/2} \sin^n\alpha \quad (1)$$

where K, γ, q, r_o and n are constants. The analysis is based on the Stokes parameters given by the author and S.I. Syrovatskiy (Astron. zh., v. 38, no. 5, 1961, 885). It is assumed in the calculation that the magnetic moment of the dipole is perpendicular to the line and that the q is very large, i.e. that the radiation belt

Card 1/2

Polarization of synchrotron ...

is sufficiently 'thin'. Formulas and a numerical table are given for the intensity and polarization of the radiation. The results can also be used for radio sources for which the synchrotron mechanism may be assumed and in which a dipole type field exists. A more detailed account will be published later.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radiowave Propagation, AS USSR)

SUBMITTED: December 24, 1962

L 11186-63 EWT(l)/FBD/FCC(w)/BDS/EEC-2/ES(v)--AFFTC/ESD-3--Pe-4/Pi-4--PT-2/
ACCESSION NR: AP3001249 S/0033/63/040/003/0582/0583 GW

AUTHOR: Dagkesamanskiy, R.D.; Korohak, A.A.

TITLE: Contribution to the determination of distances to radio sources

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 3, 1963, 582-583

TOPIC TAGS: radio astronomy, distance determinations in astronomy, supernovae, supernova remnants, type-(Roman two) supernovae, spectral indices of supernova

ABSTRACT: The paper contains a critical discussion of A.D.Kuz'min's proof (Astron.zh., v.38, 1961, 905), which purports that the radio source having the coordinates alpha = 18h53m07s and delta = + 1°16' and designated W-44 according to the Westerhout catalog (Bull.Astron.Inst.Netherl., v.14, 1958, 215) is a type-II supernova remnant. Kuz'min's use of the proof offered by I.S.Shklovskiy (Astron.zh., v.37, 1960, 369) that the radio source IC-443 is a type-II supernova remnant to demonstrate that radio source W-44 is an object of the same type as IC-443, is attacked on the grounds that Kuz'min determined the distance to W-44 by a formula derived by Shklovskiy for type-II supernova remnants, that is, by assuming a priori that W-44 is an identical remnant. This logical error would tend to invalidate Kuz'min's entire argumentation. It is alleged that the

Card 1/2

Card 2/2

L 10606-63 EWT(1)/FBL/FCC(w)/BDS/EEC-2/ES(v) AFFTC/AFMDC/APGC/ESD/
ESD-3 Pe-4/Pi-4/Po-4/Pq-4 PT-2/GW
ACCESSION NR: AP3000738 S/0020/63/150/003/0499/0502

84
83

AUTHOR: Korchak, A. A.

TITLE: On the possibility of detection and exploration of distant radiation belts by radioastronomy methods

SOURCE: AN SSSR. Doklady, v. 150, no. 3, 1963, 499-502

TOPIC TAGS: radioastronomy, distant magnetic radiation belts, regular cosmic magnetic fields, synchrotron radiation, cyclotron radiation, random magnetic fields

ABSTRACT: The detection of the synchrotron- or cyclotron radiation due to the magnetic slowing-down effect may be used for the study of distant regular magnetic fields. As was shown by the author and Syrovatskiy (Astr. Zh. 38, 885, 1961), this radiation is linearly polarized. Its spectrum and polarization have specific characteristics, and with proper instrumentation can be distinguished from radiation caused by random magnetic fields. This is shown theoretically in the present paper on the example of a dipole magnetic field under certain assumptions concerning the electron distribution. With a suitable radiotelescope it should be possible to determine the position and extension of the magnetic field. Orig. art. has: 3 figures, and four references.

Card 1/2 Association: Inst. of Earth Magnetism, Ionosphere and Radiowave Propagation

DAGKESAMANSKIY, R.D.; KORCHAK, A.A.

Determination of distances to radio sources. Astron. zhur. 40 no.3:582-583 My-Je '63. (MIRA 16:6)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.
(Radio astronomy)

KORCHAK, A.A.

Synchrotron radiation of charged articles in a dipole magnetic field. Astron.zhur. 40 no.6:994-1006 N-D '63. (MIRA 16:12)

1. Institut Zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

KORCHAK, A.A.

Polarization of synchrotron radiation in a dipole magnetic field. Geomag. i aer. 3 no.2:394-396 Mr-Ap '63.
(MIRA 17:2)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

L 32696-65 EEC-4/EWG(v)/EWA(h)/EWT(l)/EEC(t)/FBD/FCC Pe-5/Pi-4/Pq-4/
Pa-4/Pae-2/Pab GW/WS-4

ACCESSION NR: AP5005184 S/0203/65/005/001/0032/0039

AUTHOR: Korchak, A. A.

TITLE: The origin of the hard X-radiation and radio emission accompanying the solar flare of 28 September 1961

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 1, 1965, 32-39

TOPIC TAGS: radio emission, solar flare, sun, astrophysics, bremsstrahlung, nonrelativistic electron, electron magnetic field, radio burst, xray emission

ABSTRACT: The burst of X-rays accompanying the solar flare of 28 September 1961 can be attributed satisfactorily to the bremsstrahlung of nonrelativistic electron with $E_k \geq 20$ kev possessing a power-law energy spectrum of the form $\sim E_k^{-3}$. The author has found the lower limit of the concentration of particles in the radiating region, equal to $\sim 10^{10}$ cm^{-3}. In order to explain the observed flux it is required that N_e (≥ 20 kev) $\approx 3 \cdot 10^{35}$ electrons. If the electron spectrum is extended into the region of relativistic energies it is possible to explain satisfactorily the observed centimeter radio burst and estimate the strength of the magnetic field, which is 160 oe. It is shown that the assumption of the bremsstrahlung nature of X-rays is

Card 1/3

L 32686-65
ACCESSION NR: AP5005184

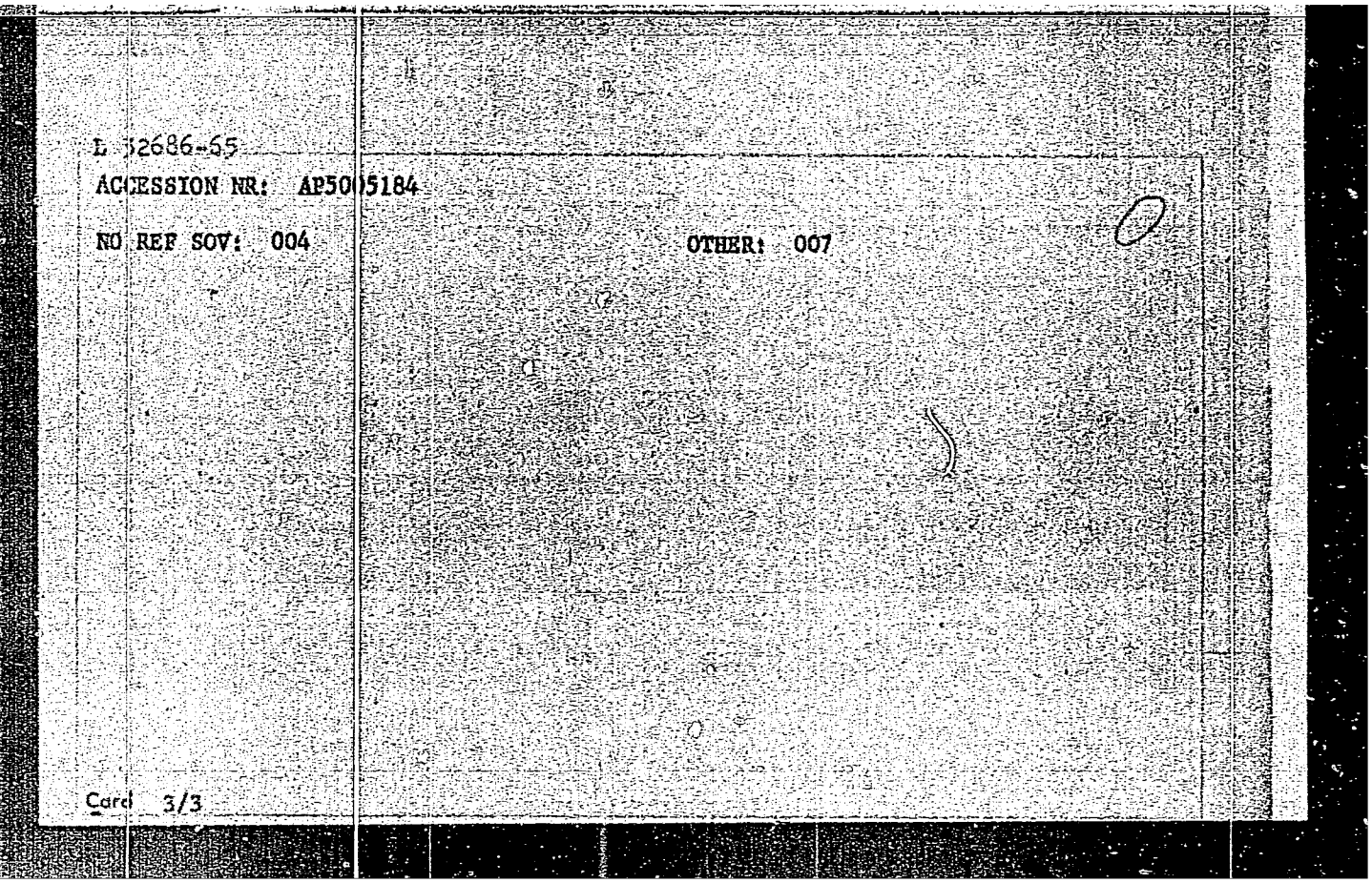
2

in agreement with experimental data. This assumption also makes it possible to explain other characteristics of the radio burst. Since the mean concentration of particles in the radiating region was $n_i = 7.8 \cdot 10^9$ cm^{-3} and the magnetic field strength is 160 oe, the plasma frequency is $\nu_p = 8 \cdot 10^8$ cps and the cyclotron frequency is $\nu_H = 4.3 \cdot 10^8$ cps. Therefore, radio emission at a frequency of 10^9 cps will be attenuated considerably by absorption. The almost simultaneous onset of the meter radio burst, covering the great range of frequencies from 18 Mc/s means that the disturbance accompanying the flare was propagated in a short time into the corona to heights of about 500,000 km. This can be explained naturally by the escape of fast electrons from the region of acceleration into the corona where, as a result of synchrotron radiation, they cause a meter radio burst. There is a systematic lag of the onset of the centimeter radio burst with frequency which can be attributed to the fact that the acceleration of electrons began in a region with a weaker magnetic field and a lesser concentration of particles. "The author is sincerely grateful to S. I. Syrovatskiy for discussion of the results". Orig. art. has: 22 formulas and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of terrestrial magnetism, the ionosphere and radio wave propagation, AN SSSR)

SUBMITTED: 13Jun64 ENCL: 00 SUB CODE: ES,AA

Card 2/3



L 52686-65

ACCESSION NR: AP5005184

NO REF SOV: 004 OTHER: 007

Card 3/3

L 01001-66 EWT(l)/EWG(v)/FCC/EEC-4/EWA(h) GW

ACCESSION NR: AP5020991 UR/0203/65/005/004/0601/0625
523.75

34
B

AUTHOR: Korchak, A. A. 55

TITLE: Electromagnetic radiation with a continuous spectrum during solar flares

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 601-625

TOPIC TAGS: solar flare, chromospheric flare, solar terrestrial relation, continuous spectrum, solar radiation, electromagnetic radiation, nonthermal radiation, solar activity, sun, Compton radiation

ABSTRACT: The question of the origin of continuous solar electromagnetic radiation, that is, radiation having a continuous frequency spectrum, is analyzed with particular attention given to hard x-radiation. The question of the mechanisms of radiation as well as the origin of the entire spectrum of nonthermal electromagnetic radiation originating during flares is examined on the basis of extensive data obtained during the recent period of high solar activity. Though analysis of the available results of observations yields no final conclusion on the character of the spectrum of the electromagnetic radiation of flares, it appears unlikely that either the entire spectrum from radio waves to gamma rays could be described by a smooth curve or

Card 1/3

L 01001-66
ACCESSION NR: AP5020991

that it originates as a result of a single radiation mechanism. Theoretically, electrons accelerated in a flare generate three types of radiation, namely, magneto-bremsstrahlung, bremsstrahlung, and Compton. The strength of the Compton radiation in the solar atmosphere is determined solely by the energy of the electrons, while the strength of the synchrotron radiation must also depend on the magnetic field strength. The strength of the bremsstrahlung depends on the density of the medium. A comparative analysis of all three types of mechanism shows that hard x-radiation in a flare can only be of a Compton nature in the case where it occurs in the corona with a concentration $<3 \times 10^8$ cm^{-3}. It is also possible that hard x-radiation in the upper chromosphere or in even denser regions of the flare occurs as the result of the bremsstrahlung of nonrelativistic and weakly relativistic electrons. If the spectrum of these electrons continues into the region of relativistic energies, then the centimeter radio bursts, which usually occur simultaneously with the x-radiation, can be attributed to the synchronous radiation of relativistic electrons. The different durations of these two bursts can possibly be attributed to different energy losses in nonrelativistic and ultrarelativistic energy regions. The continuous optical radiation in flares can be explained by the synchrotron radiation of relativistic electrons. If this is correct, then it might be expected that during this radiation the spectrum of the centimeter radio bursts must always increase with frequency, while the flux of hard x-radiation with photon energies >20 kev must exceed

Card 2/3

L 01001-66
ACCESSION NR: AP5020991

the values observed hitherto by several orders. However, it must be concluded that as yet no conclusive solution to the question of the nature of the continuous optical flare radiation has been obtained. Orig. art. has: 42 formulas and 10 figures
[DM]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: AA

NO REF SOV: 025 OTHER: 075 ATD PRESS: 4069

Card 3/3 DP

L 6945-66 FBD/EWT(1)/FCC/EWA(h) GW/WS-2

ACC NR: AP5026224 SOURCE CODE: UR/0048/65/029/010/1813/1818

56
B

AUTHOR: Korchak, A.A.

ORG: Institute of Terrestrial Magnetism, the Ionosphere, and Radio Wave Propagation, Academy of Sciences, SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nauk SSSR)

TITLE: On the origin of the continuous electromagnetic radiation incident to solar flares /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: An SSSR.Izvestiya,Seriya Fizicheskaya,v.29,no.10,1965,1813-1818

TOPIC TAGS: Solar flare, electromagnetic radiation, solar radio emission, IR light, visible light, UV light, x ray, cyclotron frequency, Compton effect, bremsstrahlung

ABSTRACT: Recent literature on the electromagnetic radiation accompanying solar flares is reviewed and the possible origin of the radiation is discussed. Possible radiation mechanisms are synchrotron radiation, bremsstrahlung, and the Compton scattering of thermal photons on relativistic electrons. The radio-frequency emission is synchrotron radiation, but the optical and x radiation must be due to one or both of the remaining mechanisms. The millimeter wavelength radiation is very closely associated with the x radiation and they are probably both due to the same

Card 1/2

L 6945-66

ACC NR: AP5026224 O

electrons; the meter wavelength radiation, however, is relatively independent of the shorter wavelength radiation and is produced in the corona. A peculiar feature of the electromagnetic radiation from solar flares is an intensity maximum in the infrared; this and the altitude of origin of the x radiation will be intensively investigated in the coming period of increasing solar activity. Presently available data do not exclude the possibility that the Compton mechanism may sometimes contribute significantly to the hard x radiation. However, the author considers it more likely that the hard x rays are bremsstrahlung arising in and above the region of the flare from nonrelativistic electrons accelerated in the flare development process and having, perhaps, a power-law energy distribution, and that the millimeter and centimeter radio emission represent cyclotron radiation from those of the same group of electrons that have relativistic energies. Radio emission in the meter wavelengths occurs only when the electron density is sufficiently high so that a significant number of electrons reach the corona. One should therefore expect the intensity maximum to occur somewhat later in the meter wavelengths than in the shorter wavelengths. Orig.art. has: 3 formulas, 1 figure and 1 table.

SUB CODE: AA SUBM DATE: 00/Oct 65 ORIG.REF: 007 OTH REF: 034

L 15216-66 EWT(1) GW

ACC NR: AP5026055 SOURCE CODE: UR/0293/65/003/005/0751/0759

AUTHOR: Korchak, A. A.

52
B

ORG: none

TITLE: Solar flares of 28 September 1961 and 20 March 1958

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 5, 1965, 751-759

TOPIC TAGS: solar activity, solar atmosphere, solar flare, solar magnetic field, bremsstrahlung, solar radiation, solar radio emission, solar short wave radiation, solar spectrum, synchrotron radiation, relativistic electron, Compton scattering

ABSTRACT: The x-ray and radio radiation accompanying solar flares is attributed to synchrotron radiation, braking radiation (bremsstrahlung), and Compton scattering of thermal photons by relativistic electrons (inverse Compton effect). In the past, these processes have been treated separately, but since their mechanisms are interrelated, the three generating processes must be considered simultaneously. The flares of 28 Sept 1961 and 20 March 1958 are so considered. On the basis of experimental data (radiation spectrum maximum, radiation intensity decay rate, duration, etc.) an analysis was made of the conditions in the solar atmosphere in the region of the flares (particle density - n_i, magnetic field intensity - H, particle energy spectrum). The continuous radiation of both flares can be explained as follows:

Card 1/2 UDC: 523.748

L 15216-66
ACC NR: AP5026055

the x-rays arise from braking radiation of fast electrons with an energy spectrum E_K^{-3}; the radio bursts from synchrotron radiation if one extends this energy spectrum to the relativistic region. The physical flare conditions differ: 28 Sept $n_1 = 7.8 \times 10^9$ cm^{-3}, H = 160 oersted; 20 March $n_1 = 7.8 \times 10^{10}$ cm^{-3}, H $\geq$ 340 oersted. The 20 March flare developed lower in the solar atmosphere and in a stronger H. This fact prevented the relativistic electrons and cosmic rays from penetrating to the upper corona. Other differences in the two flares (the strength of the meter radio waves, angular measure of the centimeter radio waves, cosmic ray intensity at the earth, etc.) are also explained. Orig art. has: 2 tables and 15 formulas.

SUB CODE: 03/ SUBM DATE: 17Jul64/ SOV REF: 008/ OTH REF: 008

Card 2/2

L 29578-66 EWT(1) GW

ACC NR: AP6018912 SOURCE CODE: UR/0203/66/006/003/0417/0423

41
40
B

AUTHOR: Korchak, A. A.; Ponomarenko, Yu. B.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Propagation of Radio Waves, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Compton effect on relativistic electrons in the solar atmosphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 417-423

TOPIC TAGS: x radiation, γ ray, Compton effect, photon, relativistic electron, isotropic distribution solar flare

ABSTRACT: Suitable formulas and spectral intensity of x-radiation and γ-rays are developed for the case when these radiations are generated during Compton dispersion of thermal photons on relativistic electrons in the solar atmosphere and in cosmic conditions. Formulas for the Compton cross section and for the energy of scattered thermal photons on relativistic electrons are developed for two cases: isotropic distribution and radial propagation. In the solar atmosphere the Compton radiation is higher than the thermal radiation in the corona. The energy integral depends upon the angles of photon impulses before and after scattering. After integration the exponential energy function changes slowly for relativistic electrons. The concentration of these electrons is computed and represented graphically in the original article. The spectral power of radiation increases linearly with low energy.

UDC: 523.72

Card 1/2

L 29578-66

ACC NR: AP6018912

1

and it increases exponentially with high energy. This result relates to the isotropic distribution occurring with a solar flare in the low chromosphere. All photons move in a radial direction from the sun when the radiative source is in the corona. When the scattered photon moves in the same direction as the primary photon without dispersion, the energy of primary photons does not change. The authors express their appreciation to S. I. Syrovatskiy. Orig. art. has: 1 figure and 30 formulas. [EG]

SUB CODE: 04/ SUBM DATE: 16Mar65/ ORIG REF: 009/ OTH REF: 006/ ATD PRESS: 5014

Card 2/2 CC

BINUS, M.S., gornyy inzh.; KORCHAK, A.I., gornyy inzh.; MASLOV, V.N., gornyy inzh.

Automation of loading in railroad bunker shafts. Gor. zhur. no.4:52-54 Ap '61. (MIRA 14:4)

1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog.
(Automatic control) (Ore handling)
(Mine haulage)

DUL'SKIY, B.F.; USENKO, K.V.; KORCHAK, A.I.; SHAMAN, O.M.

Automatic low capacity proportioning device for liquids. Khim. prom. no.3:214-215 Mr '62. (MIRA 15:4)

1. Institut avtomatiki Gosplana USSR.
(Proportioning equipment)

USENKO, K.V.; KORCHAK, A.I.

Instrument for measuring the pressure of polycaprolactam in the melt feeder. Khim. volok. no.3:31-32 '63. (MIRA 16:7)

1. Kiyevskiy institut avtomatiki Gosplana UkrSSR.
(Nylon) (Pressure—Measurement)

GRISHCHENKO, A.Z.; BONDARENKO, G.L.; TARASENKO-ZELENAYA, L.N.; KORCHAK, A.N.

Automatic control of the concentration of alkali hydroxide solutions. Khim.volok. no.2:49-52 '62. (MIRA 15:4)

1. Kiyevskiy institut avtomatiki Gosplana USSR.
(Alkalies) (Automatic control)

Card 1/1 UDC: 621.391.822:629.124.72

CHUBAR, V.; RADCHUK, B. M.; KORCHAK, O. K., Asst.
Kiev Veterinary Institute
"Drawing apparatus for topographo-anatomical examinations."
SO: Veterinariia 27(1), 1950, p. 42

1. KORCHAK, G. K.

2. USSR (600)

4. Parasites - Cattle

7. Basic principles in the therapy of trichomoniasis of cattle. Veterinariia, 29 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

KORCHAK, G.K. (Asst, Kiev Vet Inst)

"The Role of Trichomoniasis in the Etiology of Bovine Sterility"

Report given at 13th Inter-VUZ (Higher Educational Insts.) Scientific-Industrial Conference, held February 1956 at Kiev Vet Inst.

KORCHAK, G.K.

Spoon-shaped catheter for gynecological practice. Veterinariia 34 no.3: 42 Mr '57. (MLRA 10:4)

1. Kiyevskiy veterinarnyy institut.
(Catheters) (Veterinary medicine)

Rotaprint d. m.

"Taking the matter from prepuce and vagina of animals."

Veterinariya, Vol. 37, No. 6, 1960, p. 64

Ukr. Acad. Agric. Sci

KORCHAK, G.K.

Obtaining material from the prepuce and vagina of animals.
Veterinariia 37 no.6:64-65 Je '60. (MIRA 16:7)

1. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk.
(Veterinary medicine—Diagnosis)

KORCHAN, G.K.

Phonocardiographic study using pharmacologic substances. Kardiologiia 5 no.2:77-79 Mr-Ap '65. (MIRA 18:7)

1. Kafedra propedevtiki vnutrennikh bolezney pediatricheskogo fakul'teta (zav. - prof. Yu.D.Shul'ga) Khar'kovskogo meditsinskogo instituta.

BARAKINA, N.F.:GINTSBURG, G.I.:KORCHAK, L.I.:POLEZHAYEV, L.V.:ROGAL', I.G.

Repair of cranial defects. Doklady Akad. nauk SSSR 87 no. 4:673-675 1 Dec 1952. (CIML 23:5)

1. Presented by Academician A. I. Abrikosov 5 October 1952. 2. Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences USSR.

USSR/Biology - Experimental morphology

Card 1/1 Pub. 22 - 23/54

Authors : Graevskiy, E. Ya., and Korchak, L. I.

Title : Content of sulfhydryl groups in muscular tissue in the normal state and after application of X-rays in fatal doses

Periodical : Dok. AN SSSR 102/5, 939-941, June 21, 1955

Abstract : Experiments are described which were conducted to determine the effect of ionizing radiation, in fatal doses, on the content of sulfhydryl groups in muscular tissues of animals. The experiments were conducted with white mice exposed to X-rays of 700 r(roentgen). The content of sulfhydryl groups were measured in the brains, kidneys, liver, lungs, and spleen of normal animals and animals subjected to X-rays. Twelve references: 1 French, 2 USSR, 3 USA, 3 Germ. and 3 Brit. (1947-1953). Table.

Institution : The Acad. of Sc., USSR, A. N. Severtsov Institute of Animal Morphology

Presented by : Academician A. I. Oparin, February 17, 1955

AUTHORS: Grayevskiy, E. Ya., Korchak, L. I.

20-4-19/60

TITLE: The Influence of X-Radiation on the Distribution of Dyestuffs Intravenously Introduced in Mice Tissues (Vliyaniye rentgenovskogo izlucheniya na raspredeleniye v tkanakh myshey vnutrivenno vvedennykh krasiteley).

PERIODICAL: Doklady Akad.Nauk SSSR, 1957, Vol. 115, Nr 4, pp. 702 - 705 (USSR)

ABSTRACT: At first reference is made to 16 relevant earlier works. The present paper shall determine how the distribution of substances introduced into the organism changes under the influence of radiation and by what the changes are determined. The test was made with 6-8 weeks old white mice of both sexes with a weight of from 18 to 22 g. The entire animals were once irradiated with X-rays (dose 400, 700 and 5000 r with a dose power of 47 -84 r/min). In the first series of tests the distribution of a neutral red dyestuff and of methylene blue in the organs of normal and irradiated mice was investigated. These dyestuffs were intravenously introduced at different times (2 and 6 hours, 1 and 3 days). 60 minutes after the introduction of the dyestuff the animals were beheaded and the dyestuff extracted from liver, spleen, brain, lungs, kidneys and intestines. The data thus obtained are expressed in percents of the dyestuffs accumulated in the corresponding organs of the non-irradiated control animals and compil-

Card 1/2

The Influence of X-Radiation on the Distribution of Dyestuffs Intraven- 20-4-19/60
ously Introduced in Mice Tissues.

ed in a table. The law that the accumulation of neutral red dyestuffs intensifies always applies except in the small intestine and in the spleen (with all doses of radiation). Details are given. The second series of tests was performed to determine whether the accumulation of dyestuff within a certain time after irradiation was dependent on the modification of the permeability of the sides of vessels or on any other processes direction taking place in the tissues under the influence of irradiation. In this connection the largest shifts were also observed in the tissues most sensitive to radiation such as spleen and small intestine. But in the surviving tissues the coloring properties do not essentially change. The intensification of the coloring properties by the action of ionizing radiation is not only connected with disturbances of the permeability, but also with modifications of the color-absorptive power of the tissues themselves. There are 5 tables and 16 references, 10 of which are Slavic.

ASSOCIATION: Institute for the Morphology of Animals AN USSR imeni A.N.Severtsov(Institut morfologii zhivotnykh imeni A.N.Severtsova Akad.nauk SSSR)
PRESENTED: May 7, 1957, by A. I. Oparin, Academician
SUBMITTED: March 27, 1957
AVAILABLE: Library of Congress
Card 2/2

GRAYEVSKIY, E.Yu.; KORCHAK, L.I.

Factors which weaken the harmful action of ionizing radiations in mammals. Trudy Inst.morf.zhiv. no.24: 5-27 '59. (MIRA 13:3)
(X rays--Physiological effect)
(Radiation protection)

GRAYEVSKIY, E.Ya.; KORCHAK, L.I.

Distribution of dyes intravenously injected in the tissues of normal and X-rayed mice. Trudy Inst.morf.zhiv. no.24: 28-37 '59. (MIRA 13:3)
(STAINS AND STAINING (MICROSCOPY))
(X RAYS--PHYSIOLOGICAL EFFECT)

21.6300 1138 1565 1570

S/020/61/136/006/024/024
B103/B203

AUTHORS: Sperenskaya, T. A. and Korchak L. I.

TITLE: Effect of total irradiation by X-rays on the reactivity of sulfhydryl groups in tissues

PERIODICAL: Doklady Akademii nauk SSSR, v. 136, no. 6, 1961, 1468-1470

TEXT: The authors studied the problem as to whether the state of the sulfhydryl (SH) groups in the tissue changes immediately after irradiation. There are nearly no published data in this respect (except for Ref. 3). To clarify this problem, the authors totally X-rayed white mice once (total dose 700 r, 50 r/min). Subsequently, the mice were immediately decapitated. The authors studied homogenates of spleen and testicles (so-called ray-sensitive tissues) as well as of the brain, and finally the blood. The reactivity of SH groups was estimated on the basis of the rate of their inactivation in the survival of the homogenate and of the blood at 37°C. For this purpose, the authors used the amperometric, mercurimetric titration by Mirsky's method (not described in the text) as modified by A.S.Tsiperovich

Card 1/3

Effect of total irradiation...

and A. L. Loseva. With the use of these two methods it was possible to differentiate the effect of irradiation on free and poorly reactive SH groups. The authors found that the poorly reactive SH groups of spleen and testicles undergo a change which is immediately detectable. Thus, the amount of SH groups in the homogenate on incubation in vitro at 37°C was faster reduced than in the control. The authors are unable to express any opinion on the causes and mechanism of intensified inactivation. They stress, however, that this effect was only observed in ray-sensitive organs, not in the brain or blood. Besides, there are data available according to which only poorly reactive SH groups show a radiation effect whereas the reactivity of free SH groups remains unchanged. The authors have no direct proof that a relationship exists between the increase in reactivity of SH groups and their increased concentration due to irradiation. The simultaneity of the two phenomena, as well as their occurrence only in ray-sensitive tissues and in poorly reactive SH groups, speak in favor of such a relationship. The final results in vivo and in vitro are greatly different with respect to the inactivation . Some researchers found no change in the SH group content under the influence of irradiation, others, however, speak of a reduction in

their quantity. The authors explain this discrepancy by the use of nonuniform methods of treatment; in this case, these would be erroneous conclusions. At present, the authors cannot say anything about the biochemical, functional, or structural importance of the increase in lability of the SH groups of spleen and testicles in irradiated animals. For the time being, they regard this fact as an index of very early appearing changes. In a future paper, they want to clarify their nature and role in the formation of radiation damages. There are 2 figures and 14 references: 8 Soviet-bloc.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A.N.Severtsov of the Academy of Sciences USSR)

PRESENTED: September 17, 1960, by N. M. Sisakyan, Academician

SUBMITTED: June 27, 1960

86846

17.2400
21.6300 also 1294

S/020/60/135/005/041/043
B016/B052

AUTHORS: Korchak, L. I. and Speranskaya, T. A.

TITLE: Influence of Total X-Ray Treatment on the Content of Sulfohydryl Groups in Tissues

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 5, pp. 1254 - 1257

TEXT: The authors studied the effect of total X-ray treatment on the sulfohydryl (SH) ferments and SH groups in homogenates of the spleen, testicle, and cerebrum of mice. Publications on the susceptibility to radiation of thioferments, and the possibility of their reactivation by protective substances containing SH groups (Refs.1-20), however, are largely contradictory. The authors exposed white mice to 700 and 5000 r at a dose rate of 50 r/min, and beheaded the animals immediately or 10 min, 2, 24, 48, and 72 h after the treatment. The weakly reacting and the free SH groups were first determined by ammetric and mercurimetric titration (Refs.22,23). The free SH groups were determined by Mirskiy's method (not explained) as modified by A. S. Tsiperovich, and A. L. Loseva

Card 1/3

Influence of Total X-Ray Treatment on the Content of Sulfohydryl Groups in Tissues

S/020/60/135/005/041/043
B016/B052

(Ref.21). From the results of Table 1 the authors found that immediately after the X-ray treatment or somewhat later, no changes in the content of free and weakly reacting SH groups were determined in the tissues examined, after the application of a dose of 700 r. Although the amount of weakly reacting SH groups in spleen and testicle increased after 10 minutes, their content in control animals was the same after 2 and 24 h after irradiation. After 48 h their content increased again, and dropped to the initial value after 72 h. The weakly reacting SH groups in the testicle behaved similarly. In the cerebrum, no changes of free or weakly reacting SH groups could be found. The only difference in the effects of the dose of 5000 r and that of 700 r was that the increase in the content lasted up to 2 h after irradiation. No correlation was found between the level of the SH groups and the state of the animal during radiation sickness. The authors explain the discrepancies between their own and others' results by the conditions of their experiments. On the basis of their results they cannot explain the increase in the number of SH groups immediately after irradiation as being a primary radiation effect. They assume that this phenomenon reflects a previous change in the reactivity of SH groups. The authors have not yet finished their

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Influence of Total X-Ray Treatment on the Content of Sulfohydryl Groups in Tissues

S/020/60/135/005/041/043
B016/B052

studies. There are 1 table and 23 references: 9 Soviet, 8 US, 3 German, and 1 French.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR (Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences USSR)

PRESENTED: June 20, 1960, by A. I. Oparin, Academician

SUBMITTED: June 17, 1960

Card 3/3

17(4) SOV/20-126-2-58/64

AUTHOR: Korchak, L. I.

TITLE: Certain Biochemical Peculiarities of the Cranial Bones of Rabbits and Dogs in Connection With Their Ability to Regeneration (Nekotoryye biokhimicheskiye osobennosti cherepnykh kostey krolikov i sobak v svyazi s ikh sposobnost' yu k regeneratsii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 435-437 (USSR)

ABSTRACT: The ability of the animals mentioned in the title differs from that of mice (Refs 1-4). In the case of rabbits a defect mostly heals up by the formation of a bony tissue cover, whereas in the case of the other enumerated animal species and rats only a connective tissue has this function. A dependence of the age was as well observed: in the case of young dogs (2-3 months old) the defect healed up completely by bony tissue. The present paper deals with some peculiarities of the regenerating, and not regenerating bones. The content of water, organic and inorganic substances as well as of calcium was investigated in the cranial bones of dogs and rabbits of different age. The instability of the calcium bond to the protein-organic base of the bones was also inves-

Card 1/3

Certain Biochemical Peculiarities of the Cranial Bones of Rabbits and Dogs in Connection With Their Ability to Regeneration

tigated. Table 1 gives the results. They show that the water content in the bones of newborn dogs and rabbits is equal. It is reduced with rising age, in the case of dogs to a more considerable extent. The cranial bones of grown-up animals contain 23% of the quantity found in those of newborn ones. The content of organic and inorganic substances is approximately the same. The increase in inorganic substances is more distinctly marked in the case of dogs. The calcium content increases in the case of dogs and rabbits with rising age, in the case of dogs, however, to a much greater extent. No differences of calcium were found in the bone ash of different animal species. The cranial bones of the dogs differ considerably from those of rabbits with respect to the decalcification: the bond of calcium to protein is much more unstable. With young animals a complete decalcification occurs already within less than 24 hours after the beginning of the experiment what indicates greater instability of the mentioned bond. These differences allow the characterization of the peculiarities of the cranial bones and perhaps, to a certain extent, also to explain the differences in the course of the regenera-

Certain Biochemical Peculiarities of the Cranial Bones of Rabbits and Dogs in Connection With Their Ability to Regeneration

tion processes of dogs and rabbits. There are 1 table and 7 references, 5 of which are Soviet.

ASSOCIATION: Institut morfologii zhivotnykh im. A. N. Severtsova Akademii nauk SSSR
(Institute of Animal Morphology imeni A. N. Severtsov of the Academy of Sciences, USSR)

PRESENTED: November 14, 1958, by L. A. Orbeli, Academician

SUBMITTED: November 12, 1958

Card 3/3

L 13584-63 EWT(l)/EWT(m)/BDS AMD/ASD/AFFTC AR/K

ACCESSION NR: AP3003864 S/0020/63/151/003/0712/0713

56
55

AUTHOR: Korchak, L. I.; Speranskaya, T. A.

TITLE: Effect of some protective substances on changes in the reactivity of sulfhydryl groups in tissues of irradiated animals 19

SOURCE: AN SSSR. Doklady*, v. 151, no. 3, 1963, 712-713

TOPIC TAGS: radioprotector, morphine, unithiol, AET, cysteamine, cystemine, tissue sulfhydryl group

ABSTRACT: The effect of radioprotectors on the reactivity of sulfhydryl groups in tissues was studied on white mice of both sexes weighing 18 to 20 g. Group I, the control groups, consisted of nonirradiated mice. The mice in group II were subjected to x-irradiation with 700 r (180 kv; 15 mamp; filter, 0.5 mm Cu and 0.75 mm Al; rate, 49 r/min). The mice in group III were given single subcuteneous injections of radioprotectors: morphine, 1.5 mg; unithiol, 20 mg; AET, 10 mg; cysteamine, 3 mg; and cystemine, 5 mg. The mice were decapitated immediately after exposure and their spleens removed and ground in a glass homogenizer immersed in a water and ice mixture. The homogenate was diluted with physiological solution to 25 mg tissue per 1 ml. The reactivity of the thiol groups was determined by

Card 1/2

L 13584-63
ACCESSION NR: AP3003164

changes in their content during incubation of the homogenate for 2 hr at 37C. Administration of morphine, AET, cysteamine, and cystamine prevented an increase in the reactivity of the sulfhydryl groups in the tissue; the inactivation rate of the SH groups was similar to that in nonirradiated mice (controls). Unithiol, a weak protector, had practically no effect: the inactivation rate of thiol groups in the tissue was similar to that in irradiated mice without the use of radioprotectors. The data obtained show that effective radioprotectors prevent changes in the reactivity of SH groups in radiosensitive tissues regardless of whether the protective action is due to hypoxia in the tissues (morphine) or to decreased oxygen tension in the tissues (cysteamine, cysteemine, and AET). The article was presented by N. M. Sisakyan, 28 Jan 1963. Orig. art. has: 1 table.

ASSOCIATION: Institut morfologii zhivotny*kh Akademii nauk SSSR im. A. N. Severtsova (Institute for Animal Morphology, Academy of Sciences SSSR)

SUBMITTED: 25Jan63 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AM NO REF SOV: 009 OTHER: 003

Card 2/2

KORCHAK, Nina; SHMATK, Yu.G., kandidat sil's'kogospodars'kikh nauk, redaktor; FRANCHUK, V.P., redaktor

[Our work practice for increasing egg production] Nash dosvid roboty po pidvyshchenniu nesuchosti kurei. Kyiv, 1956. 21 p. (Tovarystvo dlia poshurennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser. 2, no.18) (MLRA 10:1)

1. Ptashnitsya kolgospu "Komunar," Ruzhichnyans'kogo rayonu, Khmel'nits'koi oblast (for Korchak)
(Eggs--Production)

SOV/122-59-4-19/28

AUTHOR: Korchak, S.N., Engineer

TITLE: Evaluation of the Productivity of the Grinding Process Operated with a Constant Radial Force (Otsenka proizvoditel'nosti protsessa shlifovaniya pri rabote s postoyannym radial'nym usiliyem)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 4, pp 69-73 (USSR)

ABSTRACT: High-speed grinding adopted at the Chelyabinskiy Traktornyy Zavod (Chelyabinsk Tractor Works) has increased the average productivity of labour by 20 - 30%, improved the surface finish by 1 - 2 grades and reduced grinding wheel consumption by 25 - 50%. Individual cases, such as certain alloy steels, have given different results owing to an increase in the radial force. Thus the productivity at 50 m/sec proved lower than at 30 - 35 m/sec. The rising radial force causes deflection and makes the finishing of the component to a given standard of accuracy impossible. A time study of the process with both blunt and sharp grinding wheels was undertaken and the depth of metal removed was plotted against time (Fig 1) showing the lag of the blunt wheel due to the deflection of a machine

Card 1/4

Evaluation of the Productivity of the Grinding Process Operated with a Constant Radial Force

and the component. The "running-out" time increases by 0.3 minutes. The practical evaluation of productivity is performed by comparing machine times. Devices with a constant radial force make it possible to judge productivity under given conditions by the quantity of metal removed. The works laboratory made an attachment (Fig 2) which maintains a constant radial force. Different components can be mounted between fixed centres in the attachment. The attachment consists of two plates, of which the lower is mounted on the machine bed, and the upper is guided in ball-bearing slideways by the lower plate. An electric motor rotates the workpiece and is mounted on a separate plate, displaceable in oblique slideways by a screw mechanism. The motor shaft carries a head which mounts a cone made of brake lining material (90°). The cone drives a cast iron core of larger diameter, which transmits the motion to the workpiece driving pulley through a belt. The upper plate, together with the parts of the fixture attached to it, is pressed against the grinding wheel by means

Evaluation of the Productivity of the Grinding Process Operated with a Constant Radial Force

of a weight. A dial indicator measures the metal removal and wheel wear. A freely movable upper plate produced a wavy surface and a special ratchet mechanism had to be installed, consisting of wedges entering between stops. The mechanism prevents the free withdrawal of the upper plate, until the stops are pulled away by wires. The radial force due to the weight is measured during slow rotation with a dynamometer. The metal removal against time was plotted (Fig 3). The plot shows the stable operation of the device. Details are given of the wheel dressing procedure and the grinding progress after each type of procedure is shown. The effects of dressing procedures are compared and show the abrasive dressing method to be the best. The effect of workpiece diameter is marginal. The effect of the suspended load is summarised by an increase of 100% in the amount of metal removed for a load increased by 50% (from 4 to 6 kg). The effect of workpiece speed around 40 m/min has proved marginal. Depending on the radial force, the nature of

Evaluation of the Productivity of the Grinding Process Operated with a Constant Radial Force

the wheel wear changes, namely the blunting of the grains without falling out or partial or full self-dressing. This has a determining effect on the surface finish.

There are 8 figures and 4 Soviet references.

KORCHAK, S.N.

Introducing high-speed grinding at the Chelyabinsk Tractor Plant. Stan. i instr. 30 no.1:31-34 Ja '59. (MIRA 12:1)
(Chelyabinsk--Grinding and polishing)

S/121/60/000/010/010/015
A004/A001

AUTHOR: Korchak, S. N.

TITLE: Radioactive Isotopes in Selecting Cooling Fluids for Grinding Operations

PERIODICAL: Stanki i Instrument, 1960, No. 10, pp. 26-28

TEXT: The author points out that the quantity of metal adhering to the working surface of the grinding disk plays an important rôle in determining the efficiency of grinding operations. Besides the lubricating effect, cutting fluids should be able to wash off metal particles and clean the working surface of the disk from chips in order to increase the life and efficiency of the disk. To determine the metal quantity remaining on the grinding disk with the aid of the radioactive W^{185} tungsten isotope, tests were carried out with specimens of the 33XCA (33KhSA) chromium-silicon steel. These specimens, both normalized and hardened, were ground with and without coolant. The W^{185} isotope was used because of the following properties: 1) It emits only β-radiation of low energy and, therefore, does not require powerful protection from outer radiation. 2) W^{185} dissolves easily and uniformly in iron and has a high evaporation temperature.

Card 1/4

S/121/60/000/010/010/015
A004/A001

3) W^{185} has a half-life of some 73 days which is quite sufficient for a test period of 1 - 2 months. 0.16 kg of tungsten were added to the steel melt with a total activity of 13.5 mc. Since the molten metal weighed 50 kg, the W-content increased only by 0.0032%. The normalized specimens of the 33KhSA grade steel were heated up to 900°C with subsequent air-cooling, so that a pearlitic and ferritic structure with a hardness of HB 255 - 269 was obtained. The second group of specimens was oil-hardened at 800°C; these specimens were of a sorbite structure with a hardness of HB 555 - 600. The uniformity of radioactive tungsten distribution in steel was determined by measuring the activity of the individual specimens. The metal quantity adhering to the disk after grinding should be directly proportional to its activity so that measuring the activity of the working surface of the disk furnished an idea of the quantity of adhering metal. The grinding conditions during the whole test period were constant: v_{disk} = 39 m/sec, s_{long} = 9 m/min, t = 0.02 m/double motion of table. A layer of metal of 2 mm thickness was removed during the grinding operations. Fig. 3 shows the protective jacket with the incorporated counter, mounted on the tool rest: 1 - current collector, 2 - copper busbar, 3 - textolite bushing, 4 - ebonite ring, 5 - MCT-17 (MST-17)

Card 2/4

Radioactive Isotcpes in Selecting Cooling Fluids for Grinding Operations

counter, 6 - lead, 7 - barrel, 8 - steel jacket, 9 - fixing bolt, 10 - protective steel plate. Based on the counter characteristics, an operating voltage of the counter of J = 1,700 v was selected. The pulses were read on the B-2 (B-2) scaler. After the grinding the total activity of the working layer and background were measured and corrected. The obtained results were averaged and corrected, taking into account the natural

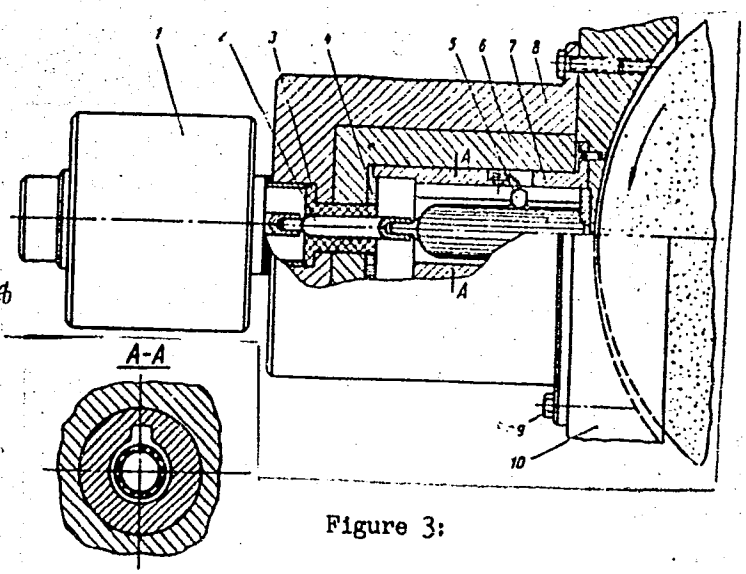

Figure 3:

S/121/60/000/010/010/015
A004/A001

Radioactive Isotopes in Selecting Cooling Fluids for Grinding Operations

W^{185} decay. The calculations were effected according to the formula:

$J_o = J\exp\frac{\ln 2\,(t - t_o)}{T}$, where J_o = activity scaled on the first test day of a definite test series, J = average activity with corrections for the natural background, t = measuring date, t_o = day of the beginning of test series, T = half-life. The following cutting fluids were compared, being used with the 2462K (E46S1K) grinding disk: 5% emulsion (a solution of emulsol in water), an emulsion of a 15% water solution of soda (1.5% $NaNO_2$, 0.5% $NaCO_3$), No. 3 spindle oil, No. 3 spindle oil + 20% kerosene and sulfofrezol + 33% kerosene. For a comparison grinding without cooling was carried out. The poorest result is obtained with the water emulsol solution, while the best result was obtained with an oil mixture (sulfofrezol and spindle oil) with kerosene. The author concludes by saying that, while different coolants produce a 300 - 400% difference in the amount of metal adhering to the working surface of the grinding disk, the described test method has the advantages of a comparative short time of investigation (10 - 12 working hours), and accurate results (rms deviation = 9.7%). There are 5 figures.

Card 4/4

S/122/60/000/009/009/015
A161/A026

AUTHOR: Korchak, S.N., Engineer

TITLE: Investigation of Efficiency in High-Speed Grinding Process

PERIODICAL: Vestnik mashinostroyeniya, 1960, No. 9, pp. 62 - 65

TEXT: The efficiency of high-speed grinding compared with the conventional grinding process has been evaluated differently in several previous investigations (Refs. 1 - 3), where the grinding wheel properties have not been considered. Subject investigation has been carried out with a test device especially designed (previously described in Ref. 4) that ensured a constant radial force in the process of circular grinding. A 6-kg weight was applied to the device. Specimens of steel "45"; 50Г (50G), 20ХН3А (20KhN3A) and 33ХСА (33KhSA) were used, with different hardness and microstructure. The grinding wheels were of white electrocorundum of СМ2 (SM2); С1 (S1) and СТ1 (ST1) grades (with ceramic binder). Grinding was carried out at constant speed - 30 m/min of the rotating specimen and 35 and 50 m/sec of the grinding wheel. The high-speed grinding effect was compared with conventional grinding in 20-min tests; the effect was judged by the volume of metal removed. Surface finish, electric power consump-

Card 1/2

Investigation of Efficiency in High-Speed Grinding Process

tion and wear of the wheels was studied. The data obtained led to the conclusion that grinding with a 50 m/sec wheel speed instead of 35 m/sec raised the process efficiency by 20 - 80%, reduced the wheel wear by 20% - 30%, produced accurate and smooth surface and cut the power consumption by 20%. Highest effect has been obtained with high-speed grinding of plain carbon and low-alloy steel (with or without hardening). The effect dropped with increasing machining properties of steel and increasing hardness of grinding wheels. It is advised to lower the wheel hardness by 1 or 2 degrees for grinding critical steel (33KhSA type) with 50 m/sec. There are 2 tables, 1 set of graphs and 4 Soviet references.

Card 2/2

ANDREYEV, G.S., kand. tekhn. nauk; BOKUCHAVA, G.V., kand. tekhn. nauk, dots.; BRAKHMAN, L.A., inzh.; BUDNIKOVA, A.V., inzh.; GORDON, M.B., kand. tekhn. nauk, dots.; ZHAVORONKOV, V.N., inzh.; KARZHAVINA, T.V., kand. tekhn. nauk; KOROTKOVA, V.G., inzh.; KORCHAK, S.N., inzh.; KLUSHIN, M.I., kand. tekhn. nauk, dots.; KUZNETSOV, A.P., kand. tekhn. nauk, dots.; KURAKIN, A.V., inzh.; LATYSHEV, V.N., inzh.; OL'KHOVSKIY, V.N., inzh.; ORLOV, B.M., kand. tekhn. nauk, dots.; OSHER, R.N., inzh.; PODGORKOV, V.V., inzh.; ; SIL'VESTROV, V.D., kand. tekhn. nauk [deceased]; TIKHONOV, V.M., inzh.; TROITSKAYA, D.N., inzh.; KHRUL'KOV, V.A., inzh.; LESNICHENKO, I.I., red. izd-va; SOKOLOVA, T.F., tekhn. red.; GORDEYEVA, L.P., tekhn. red.

[Lubricating and cooling fluids and their use in cutting metals] Smazochno-okhlazhdaiushchie zhidkosti pri rezanii metallov i tekhnika ikh primeneniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 291 p. (MIRA 15:1)
(Metalworking lubricants)

KORCHAK, Stanislav Nikolayevich; SVET, Ye.B., red.; KOLBICHEV, V.I., tekhn.red.

[Improving the efficiency of grinding; selecting characteristics of grinding wheels and using isotopes for determining the greasing of the wheels] Povyshenie proizvoditel'nosti shlifovaniia; vybor kharakteristiki krugov i primenenie izotopov dlia opredeleniia ikh zasalivaemosti. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1961. 65 p. (MIRA 15:4)
(Grinding and polishing) (Grinding wheels—Testing)
(Radioisotopes—Industrial applications)

KORCHAK, S.N.

S/121/62/000/010/005/005
D040/D112

AUTHOR: None given

TITLE: Dissertations

PERIODICAL: Stanki i instrument, no. 10, 1962, 44

TEXT: The following dissertations for the degree of Candidate of Technical Sciences were presented: L.D. Adamovich, at the Voyenno-inzhenernaya krasnoznamennaya akademiya im. V.V. Kuybysheva (Military Engineering "Red Banner" Academy im. V.V. Kuybyshev), "Some Aspects of the Geometry of Helical Surfaces"; G.A. Andreyev, at the VNII zh.-d. transporta (VNII of RR Transportation), "Investigation of the Contact Formation Between Rough Surfaces"; A.V. Baltrushevich, at the Vsesoyuznyy ordena Trudovogo Krasnogo Znameni NII elektromekhaniki (All-Union "Order of the Red Banner of Labor" NII of Electromechanics), "Investigation of a Digital Servo System for Converting Digits into Movements"; A.P. Bezrodnyy, at the Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (Leningrad Polytechnic Institute im. M.I. Kalinin), "Investigation of the Processes of Stepless Control of

Card 1/2

S/121/62/000/010/005/005
D040/D112

Electric Motors in Unstabilized Motion Periods"; V.M. Kolesnikov, at the All-Union "Order of the Red Banner of Labor" NII of Electromechanics, "Investigation of a Pulse Drive With a Step-by-Step Motor and Development of Its Elements"; S.N. Korchak, at the Moskovskiy stankoinstrumental'nyy institut (Moscow Institute of Machine Tools and Instruments), "Investigation of the Machinability of Steels in Grinding by Wheels Having Different Properties"; Ye.P. Mikityuk, at the Kiyevskiy ordena Lenina politekhnicheskiy institut (Kiyev "Order of Lenin" Polytechnic Institute), "Investigation of the Effect of Partial Bimetallization on the Wear Resistance of Cast Iron Friction Couples"; N.K. Ostroumov, at the Moskovskoye ordena Trudovogo Krasnogo Znameni vyssheye tekhnicheskoye uchilishche im. N.E. Baumana (Moscow "Order of the Red Banner of Labor" Higher Technical School im. N.E. Bauman), "Investigation of the Automatics of Mechanical Copying in Machine Tools with Coordinate Cams and Elastic (Flexible) Links"; B.G. Tamm, at the Nauchno-issledovatel'skiy tekhnologicheskiy institut (Technological Scientific Research Institute), "Methods of Automatically Programming the Calculation of Initial Data for Program Control Systems";

Card 2/2

KORCHAK, V. V.

"Sur l'action du monochlorure de soufre sur le phenylacetonytryle." Korchak, V. V.; Lisseenko, A. F. (p. 1329)

SO: Journal of General Chemistry
(Zhurnal Obshchoi Khimii) 1939, Volume 9, #14

S/826/62/000/000/002/007
D408/D307

AUTHORS: Kamenetskiy, M.V., Kostyukov, A.A. and Korchakov, V.A.

TITLE: The ternary system of sodium, titanium and barium chlorides

SOURCE: Fizicheskaya khimiya rasplavlennykh soley i shlakov; trudy Vses. soveshch. po fiz. khimii raspl. soley i shlakov, 22 noyabrya 1960 g., Moscow, Metallurgizdat, 1962, 60-62

TEXT: The authors studied the phase diagram of the ternary system $NaCl--TiCl_3--BaCl_2$ in the region of compositions suitable for the electrolytic production of titanium, because the addition of $BaCl_2$ to the system $NaCl--TiCl_3$ (in order to prevent separation of the electrolyte components), alters the physico-chemical properties of the electrolyte. The cited binary system was also studied, up to 55.5 mol % $TiCl_3$ content, because of the discrepancies in the data concerning this system obtained by

Card 1/2

S/826/62/000/000/002/007
D408/D307

Kamenetskiy et al. The investigations showed that the binary system eutectic contains 23 mol % $TiCl_3$ and melts at 550°C; the ternary eutectic has the composition $TiCl_3$ 20.8, $BaCl_2$ 14.2, and NaCl 65.0 mol % and melts at 540°C. There are 3 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut
(Leningrad Polytechnic Institute)

KARPLYUK, V.P.; KORCHAN, A.A.

Always on the road. Transp. stroi. 14 no.1:35-36 Ja '64.
(MIRA 17:8)

KORCHANOV, A. T.

Agriculture & Plant & Animal Industry.

Auxiliary enterprises in the collective farms. Moskva, Gos. izd-vo selkhoz lit-ry, 1951.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

KORCHANOV, A.T.

Stalingradskaia lesomelioirativnaia
stantsiia (Stalingrad forest conservation station).
Izd. 2-e. Moskva, Sel'khozgiz, 1952. 144 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

BELOUSOV, Yu.A.; LORCHANOV, A.T.; RUDINSKIY, Ye.Ya.; STEPNOVA, Ye.V.; BANNIKOV, N.A., red.; ZAPIVAKHIN, A.I., red.; LAPIDUS, M.A., red.; RAKITINA, Ye.D., red.; TERESHCHENKO, N.I., red.; FREYDMAN, S.M., red.; BALLOD, A.I., tekhn.red.

[Manual on rural subsidiary enterprises] Spravochnik po sel'skim podsobnym predpriiatiiam. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 798 p. (MIRA 13:12)
(Manufactures) (Farm produce)

KORCHANOV, G. I. Doc Cand Med Sci -- (diss) "Distinction between forms of the deep femoral artery and their applied significance." Len, 1957. 12 pp 22 cm. (Leningrad Pediatric Medical Inst ~~of Pediatrics~~), 100 copies

(KL, 21-57, 106)

KORCHANOV, G.I. (Leningrad, nab. r. Moyki, d.20, kv. 48)

Surgical significance of differences in deep femoral artery [with summary in English, p.157]. Vest.khir. 78 no.3:19-27 Mr '57. (MIRA 10:6)

1. Iz kafedry anatomii (zav. - prof. A.V.Shilova) Leningradskogo pediatricheskogo meditsinskogo instituta i kafedry operativnoy khirurgii (zav. - prof. M.A.Sreseli) 1-go Leningradskogo meditsinskogo instituta im. akad. I.P.Pavlova.

(ARTERIES FEMORAL, anat. & histol.
surg. significance of anat. variations (Rus))

KORCHANOV, G.I. (Leningrad, Zhelyabov, d. 1, kv. 12)

Individual and age variations in the deep femoral artery. Arkh.anat. gist. i embr. 35 no.6:106-107 N-D '58. (MIRA 12:1)

1. Iz kafedry normal'noy anatomii Leningradskogo pediatricheskogo meditsinskogo instituta (zav. - prof. A.V. Shilova).
(ARTERIES, FEMORAL, anat. & histol.
individual & age-connected variabilities of deep femoral artery (Rus))

AVIDON, D.B., kand.med.nauk; BAIROV, G.A., kand.med.nauk; BUTIKOVA, N.I., dotsent, kand.med.nauk; BOYKOV, G.A., kand.med.nauk; VERESHCHAGINA, L.N., kand.med.nauk; GONCHAROVA, M.N., prof., doktor med.nauk; ZHOLOBOV, L.K., vrach; ZEMSKAYA, A.G., kand.med.nauk; KAYSAR'YANTS, G.A., dotsent, kand.med.nauk; KOLESOV, A.P., doktor med.nauk; KONDRAT'YEV, A.P., kand.med.nauk; KORCHANOV, G.I., kand.med.nauk; KUTUSHEV, F.Kh., kand.med.nauk; LEVINA, O.Ya., kand.med.nauk; LYANDRES, Z.A., prof., doktor med.nauk; MOROZOVA, T.I., kand.med.nauk; MIRZOYEVA, I.I., kand.med.nauk; PANUSHKIN, V.S., kand.med.nauk; RASTORGUYEV, A.V., vrach; RUDAKOVA, T.A., kand.med.nauk; SAVITSKAYA, Ye.V., kand.med.nauk; SVISTUNOV, N.I., vrach; CHISTOVICH, G.V., kand.med.nauk; YAKOVLEVA, T.S., vrach; MARGORIN, Yevgeniy Mikhaylovich, prof., red.; DOLETSKIY, S.Ya., red.; VERESHCHAGINA, L.N., red.; RULEVA, M.S., tekhn.red.

[Operative surgery on children] Operativnaia khirurgiia detskogo vozrasta. Leningrad, Gos.izd-vo med.lit-ry Medgiz, Leningr.otd-nie, 1960. 475 p. (MIRA 13:12)

(CHILDREN--SURGERY)

17(10) SOV/177-58-7-9/28

AUTHOR: Korchanov, L.S., Candidate of Medical Sciences, Pryakhin, I.I. and Yakubenko, A.V., Colonels of the Medical Corps

TITLE: Characteristic of Several Kinds of Combined Radiation Injuries and Their Treatment

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, pp 44-49 (USSR)

ABSTRACT: This article is an attempt ot generalize the experimental material for studying the effect of penetrating radiation in combination with traumas and wound infections. I.A. Peymer and A.A. Nikitin experimentally proved that a 800-r radiation of rabbits disturbs their hemodynamics. According to data of A.A. Nikitin, I.A. Peymer (1952), V.M. Burmistrov, V.G. Slinko, K.K. Zaytseva(1956), traumas aggravate the hemodynamic disturbance and increase the death-rate of radiated animals. Similar results were obtained by I.I. Pryakhin, L.S. Korchanov (1953-55).

Card 1/4

SOV/177-58-7-9/28

Characteristic of Several Kinds of Combined Radiation Injuries and Their Treatment

Based on their experiments, A.V. Yakubenko (1953), M.N. Kondrat'yev (1955) and V.K. Kulagin (1955) stated that in radiated animals the initial phase of a shock lasts longer than in non-radiated animals. The complex therapy of a traumatic shock in the initial period of the radiation sickness in dogs is fully efficacious but data of T.K. Dzharak'yan and G.F. Fakhrutdinov (1954) prove that intravenous injection of novocaine exerts an unfavorable effect on the course of acute radiation sickness in animals. According to data of I.I. Pryakhin (1954), the intramuscular injection of anti-gangrene serum in combination with penicillin prevents an anaerobe infection in dogs. Based on their own investigations of wounds of the soft tissue, complicated by an anaerobe and purulent-saprogenic infection in rabbits suffering from second and third stage radiation sickness, the authors conclude that in the initial period

Card 2/4

SOV/177-58-7-9/28

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D264/D304

AUTHORS: Korchanov, L.S., Candidate of Medical Sciences, Colonel, Medical Corps, and Kondrat'yev, P.P., Professor

TITLE: X-ray diagnosis of gas gangrene combined with radiation sickness

PERIODICAL: Voyenno-meditsinskiy zhurnal, no. 7, 1960, 55-60

TEXT: Using X-ray diagnosis, the authors studied experimental gas gangrene in dogs affected with penetrating radiation. The animals were infected with a mixture of Clostridium perfringens and Clostridium edematiens. In one of the test series dogs with a fractured femur were infected. All dogs contracted a rapidly progressive form of gas infection, usually leading to death on the first or second day. After infection the animals were kept under close observation and the damaged extremities were X-rayed after 3, 6, 12 and 24 hours. A detailed account of 5 case histories of dogs used in the tests is given. The results showed that X-ray study is

Card 1/2

the earliest means of diagnosing the stormily progressive form of gas gangrene. Gas was detected in the soft tissues of the damaged extremity 1-3 hours after infection, i.e. at a time when clinical symptoms are not yet marked. The gas-formation process developed identically in both non-irradiated animals and in animals subjected to penetrating radiation before infection. The X-ray method proved to be the basic method of diagnosis in animals infected at the height of acute radiation sickness. A definite parallelism was noted between the clinical symptoms of gas gangrene and the X-ray picture: the graver the gangrene, the more varied and extensive were the foci of pathological clarifications on the X-ray plates. S.A. Novitskiy, A.P. Minakov, L.M. Gol'dshteyn, I.M. Yakhnich, B.M. Shtern, S.I. Volkov, R.I. Kurashov are mentioned as Soviet scientists who have studied the efficacy of X-ray diagnosis of gas gangrene. Reference is also made to A.N. Chistovich, A.K. Ageyev and A.A. Troitskiy. There are 4 figures.

SUBMITTED: March, 1959

Card 2/2

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S/241/62/000/011/004/005
B144/B186

27 2400

AUTHORS: Berkutov, A. N., Korchanov, L. S., Yaroslavtseva, N. A., Bochagova, D. I.

TITLE: Substitution therapy at the peak of radiation sickness

PERIODICAL: Meditsinskaya radiologiya, no. 11, 1962, 59 - 65

TEXT: The effect of direct blood transfusions on radiation sickness was studied in order to improve the therapy of radiation sickness combined with traumatic or thermal damage. Ten dogs were whole-body irradiated with 350 r (6.3 r/min) and 5 of them were additionally treated with antibiotics. Mobility, food absorption, pulse, respiration, temperature, weight, etc. were observed, ECG's were taken, complete blood counts were made and hemoglobin and prothrombin levels, coagulation time, general protein content, protein fractions. phagocytic activity, and bactericidity of the blood were determined. As soon as the number of leucocytes dropped below 1500 - 1000 per ml, a direct blood transfusion of ~150 ml with minute additions of heparin was made and repeated 3 - 4 times at intervals of 2 - 3 days. All 10 dogs survived whereas 4 of the 5 controls died. The radiation-induced reduction in the phagocytic activity of the leucocytes was

Card 1/2

successfully influenced by direct transfusions, reaching supernormal values (+20 %) after 4 weeks; in the controls a minimum of only 7 % of the initial value was observed after 5 weeks and the initial value was regained after 10 weeks. Antibiotica slightly reduced the phagocytosis. The bactericidity of the blood was evaluated on the basis of the properdin titer in the serum, which hardly changed in the test animals whereas it dropped sharply in the control, becoming nondeterminable after ~ 2 weeks. The experiments prove that direct blood transfusions are a potent means of mitigating and healing radiation sickness. There are 3 figures. The most important English-language reference is: D. K. Sorenson, V. P. Bond, E. P. Cronkite, Radiat. Res., 1960, v. 13, p. 669.

ASSOCIATION: Kafedra voyenno-polevoy khirurgii Voyenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova (Department of Field Surgery of the "Order of Lenin" Military Medical Academy imeni S. M. Kirov) (Professor A. N. Berkutov, Major-general of the Medical Service, Chairman of Department)

SUBMITTED: February 25, 1962

Card 2/2

BERKUTOV, A.N.; KORCHANOV, L.S., YAROSLAVTSEVA, N.A.; BOCHAGOVA, D.I.

Substitution therapy at the peak of acute radiation sickness., Med. rad. 7 no.11:59-65 N'62. (MIRA 16:9)

1. Iz kafedry voyenno-polevoy khirurgii (nachal'nik - general mayor meditsinskoy sluzhby, prof. A.N.Berkutov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova)

KORCHASHKIN, E.T.

Clamping apparatus for horizontal drilling and slotting machines. Rats.i izobr.predl.v stroi. no.50:9-10 '53.
(MLRA 7:2)
(Drilling and boring machinery)

KORCHAZHKIN, V.T.

Cyclone for removing liquids from gas. Trudy VNIIGAZ no.2:83-129 '58. (MIRA 12:1)

(Separators (Machines))

MINSKIY, Ye.M.; KORCHAZHKIN, M.T.

Use of gas separators. Gaz.prom. 4 no.10:13-16 O '59.
(MIRA 13:2)

(Gas, Natural) (Separators (Machines))

KOROTAYEV, Yu. P., KORCHAZHKIN, M.T., ZOTOV, G.A., ZHAROV, N.V., MAKSIMOV, V.P., PETUKHOV, Ye. I., VOYTSITSSKIY, V.P.

Mobile unit for the complete investigation of gas wells. (MIRA 13:6)
Gaz.prom. 5 no.2:8-13 F '60.
(Gas wells)

Korchazhkin. T.M or M.T.

USSR /Chemical Technology. Chemical Products and Their Application I-16

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31945

Author : Minskiy Ye. M., Korchazhkin T.M.

Title : Cyclone Process in the Separation of Natural Gases

Orig Pub: Gaz. prom-st', 1956, No 7, 1-7

Abstract: Studies were carried out on the separation of liquid drops from a gas current in glass models of cyclones (C) of two types: a conventional, and one with a gap in the exhaust pipe. It is shown that in conventional cyclones a portion of the coagulated drops, flowing down over the

Card 1/3

USSR /Chemical Technology. Chemical Products and Their Application I-16

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31945

outside wall of the exhaust pipe, turns into the exhaust pipe and rises therein to the outlet which results in escape of a portion of the liquid from the cyclone; the amount of liquid that escapes depends on the velocity of the gas in the cyclone; purification coefficient (PC) of cyclone increases at first and then drops sharply. In a C which has a gap in the exhaust pipe the liquid that ascends along the exhaust pipe is driven out of the pipe by the gas flow, at the point where the pipe has a gap, and can be collected in a separate receptacle; thus the

Card 2/3

KORCHAZHKIN, T. M. and M. T.

2

Computation of the through-put of cyclone separators. M. M. Minskii and T. M. Korchazhkin. *Gazovaya Prom.* 1956, No. 11, 1-6.—The author's study of the physics of gas flow through the cyclone separator leads to the equation $Q = KD^2 g^{0.5} P \Delta P^{0.5} / d^{0.5}$ where Q is the vol. rate, D the diam. of the separator, g the gravitational const., P the gas pressure, γ the coeff. of compression, ΔP the frictional drag, and d the d. of the gas under normal conditions. The scale drawing of a standard industrial model is shown.

Phys

H. I. Olin

MINSKIY, Ye.M.; KORCHAZHKIN, M.T.

Experimental studies of cyclone gas separators. Trudy VNIIGAZ no.9:160-184 '60. (MIRA 16:7)
(Gases—Purification) (Separators (Machines))

MINSKIY, Ye.M.; KORCHAZHKIN, M.T.

Experimental studies of the operation of centrifugal atomizers. (MIRA 16:7)
Trudy VNIIGAZ no.9:185-207 '60.
(Petroleum refineries—Equipment and supplies) (Atomization)

KORCHAZHKIN, M.T.; GRACHEV, V.N.; VODYANOY, Yu.A.

KGV-1 direct-flow flow beam. Gaz. delo. no.2:13-14 '64.
(MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

KORCHAZKIN, M.T.

Determining the adiabatic curve for natural gas. Gaz. prom. 7 no.8: 11-13 '62. (MIRA 17:10)

KORCHAZHKIN, M.T.

Calculating the throttling of natural gas. Gaz. prom. 8 no.7: 15-21 '63. (MIRA 17:8)

S/0058/64/000/007/D058/D058

ACCESSION NR: AR4046004

SOURCE: Ref. zh. Fizika, Abs. 7D457

AUTHORS: Distler, G. I.; Korchazhkina, R. L./ Chudakov, V. S.

TITLE: Investigation of the dependence of birefringence in germanium single crystals on the growth conditions

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 28-35

TOPIC TAGS: crystal growth, germanium, single crystal, double refraction, dislocation study

TRANSLATION: A photoelectric scanning polariscope PIK-1 (wavelength 2.25 μ) was used to study the dependence of birefringence patterns due to mechanical stresses on the thermal regimes of germanium crystal growth. The samples were cut perpendicular to the growth axis from crystals obtained by the Czochralski method, by zone melting, and by the tablet method. The obtained birefringence distributions

Card 1/2

ACCESSION NR: AR4046004

agree with the distributions in the dislocation density, determined from the etch figures. It is indicated that in technological investigations the method of birefringence study is less laborious than the method of dislocation study. V. Sintsov.

SUB CODE: SS, OP ENCL: 00

Card 2/2

L 57851-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) Pi-4 IJP(c)
JD/GG
ACCESSION NR: AT4049420 S/0275/64/000/009/B008/B009
621.315.592:548.552:546.289

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 9B54 41
B

AUTHOR: Distler, G. I.; Korchashkina, R. L.; Chudakov, V. S.

TITLE: Investigation of the effect of growing Ge single crystals upon their birefringence

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 28-35

TOPIC TAGS: birefringence, germanium crystal, crystal growing

TRANSLATION: By means of a PIK-1 photoelectric polariscope (λ = 2.25 mm), the effect of thermal conditions during Ge crystal growing upon the birefringence patterns caused by mechanical stresses was studied. Specimens up to 40 mm diameter were cut at right angles to the growing axis from the crystals obtained by the [illegible]-method growing and by zone melting. The birefringence distributions [illegible] dislocation-density distributions determined from etching patterns [illegible] that, under industrial conditions, the method of birefringence study requires less labor than the method of dislocation study. Bibliography: 4 titles.

Card 1/1 SUB CODE: SS ENCL: 00

ACCESSION NR: AP4043195 S/0070/64/009/004/0568/0569

AUTHOR: Maslov, V. N.; Ovodova, A. V.; Korchazhkina, R. L.; Nabatova, L. V.

TITLE: Dislocation structure observed on etching highly doped germanium

SOURCE: Kristallografiya, v. 9, no. 4, 1964, 568-569

TOPIC TAGS: germanium single crystal, arsenic doped germanium, gallium doped germanium, dislocation detection, chemical etching, impurity precipitation

ABSTRACT: The precipitation of impurities on dislocations was studied by chemical etching of the polished sections of arsenic- or gallium-doped germanium single crystals. The dopant concentration was near the limit of its solubility. Crystals were grown by the Czochralski method. As expected, various dislocation patterns were revealed by etch pits near the surface of specimens. Dislocation loops were more pronounced on arsenic-doped than on gallium-doped specimens. This observation is in agreement with the earlier

Card 1/2

ACCESSION NR: AP4043195

conclusion that condensed vacancies are the source of dislocations in highly doped crystals. Orig. art. has: 3 figures.

ASSOCIATION: Gosudarstvenny*y nauchno-issledovatel'skiy i proyektny*y institut redkometallicheskoy promy*shlennosti (State Scientific Research and Design Institute of the Rare metals Industry)

SUBMITTED: 07Feb63 ENCL: 00

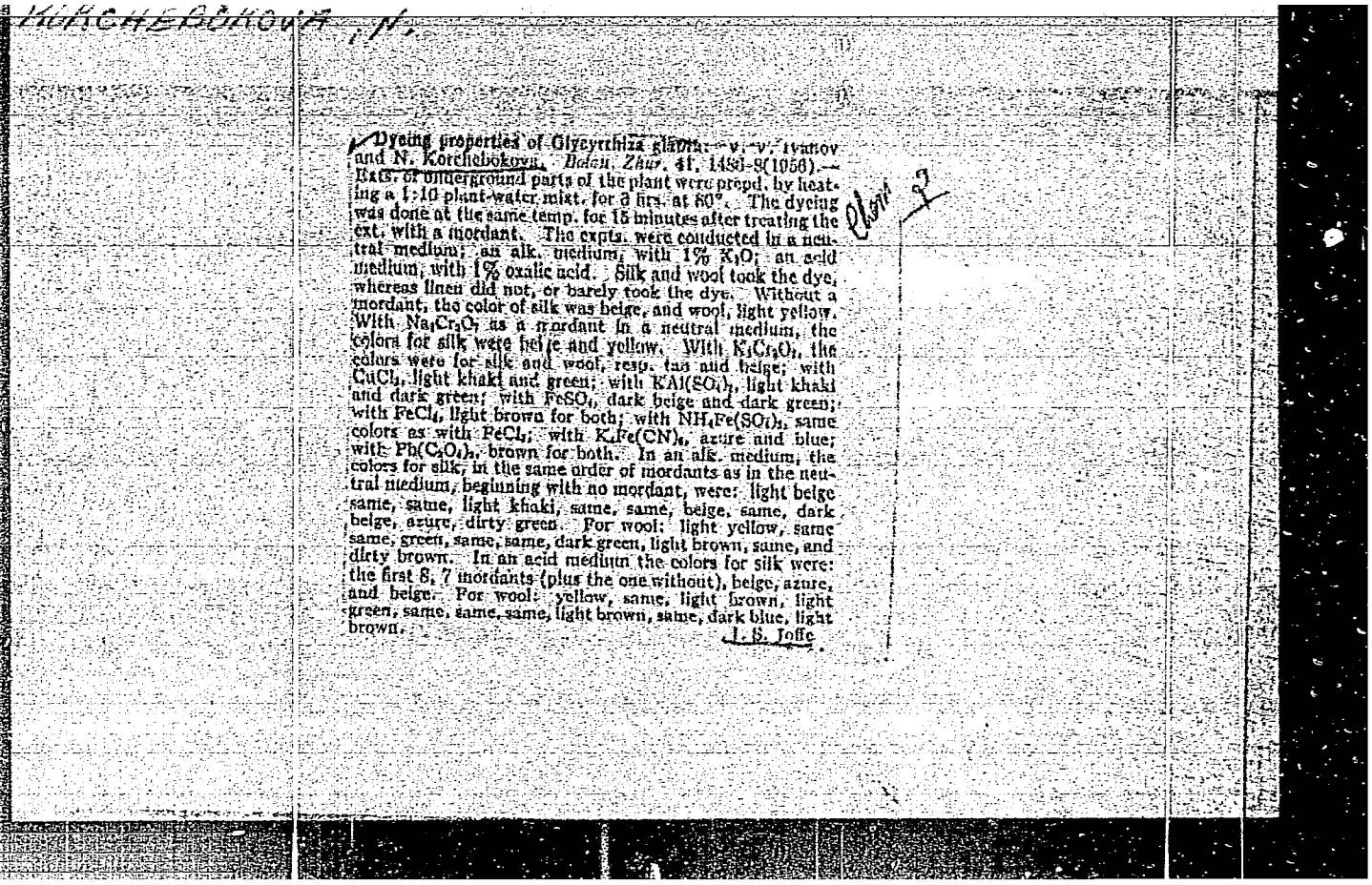
SUB CODE: SS NO REF SOV: 000 OTHER: 008

Card 2/2

MASLOV, V.N.; OVODOVA, A.V.; KORCHAZHKINA, R.L.; NABATOVA, L.V.

Observation of dislocation structures when etching heavily doped germanium. Kristallografiia 9 no.4:568-569 Jl-Ag '64. (MIRA 17:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskiy promyshlennosti.



Dyeing properties of Glycyrrhiza glabra. —V. V. Ivanov and N. Korchelokova. *Bolan. Zhur.* 41, 1483-8(1956).—Exts. of underground parts of the plant were prepd. by heating a 1:10 plant-water mixt. for 3 hrs. at 80°. The dyeing was done at the same temp. for 15 minutes after treating the ext. with a mordant. The expts. were conducted in a neutral medium; an alk. medium, with 1% K_2O; an acid medium, with 1% oxalic acid. Silk and wool took the dye, whereas linen did not, or barely took the dye. Without a mordant, the color of silk was beige, and wool, light yellow. With $Na_2Cr_2O_7$ as a mordant in a neutral medium, the colors for silk were beige and yellow. With $K_2Cr_2O_7$, the colors were for silk and wool, resp. tan and beige; with $CuCl_2$, light khaki and green; with $KAl(SO_4)_2$, light khaki and dark green; with $FeSO_4$, dark beige and dark green; with $FeCl_3$, light brown for both; with $NH_4Fe(SO_4)_2$, same colors as with $FeCl_3$; with $K_4Fe(CN)_6$, azure and blue; with $Pb(C_2O_4)_2$, brown for both. In an alk. medium, the colors for silk, in the same order of mordants as in the neutral medium, beginning with no mordant, were: light beige same, same, light khaki, same, same, beige, same, dark beige, azure, dirty green. For wool: light yellow, same same, green, same, same, dark green, light brown, same, and dirty brown. In an acid medium the colors for silk were: the first 8, 7 mordants (plus the one without), beige, azure, and beige. For wool: yellow, same, light brown, light green, same, same, same, light brown, same, dark blue, light brown.

I. S. Joffe

L 19170-63 EWP(q)/EWT(m)/BDS ASD/AFFTC JD/WB

ACCESSION NR: AR3005142 S/0282/63/000/006/0004/0004

SOURCE: Khimicheskoye i kholodil'noye mashinostroyeniye, Abs. 6.47.19 56

AUTHOR: Korchak, Sh.; Vesely, V.

TITLE: Combatting corrosion in the oil refining industry in the Czechoslovak Socialist Republic 18

CITED SOURCE: Tr. Vses. mezhvuz. nauchn. konferentsii po vopr. bor'by* s Korroziyey. M., Gostoptekhizdat, 1962, 365-374

TOPIC TAGS: oil refining equipment, corrosion prevention, corrosion inhibitor, corrosion

TRANSLATION: Studies on the prevention of corrosion in connection with the conversion of the oil refineries of the Czechoslovakian Socialist Republic to the refinement of a new raw material--the oil from the Volga-Ural region of the USSR, have shown that a considerable role in the reduction of corrosion is the deep desalination of the crude oil. The desalination is best carried out with the aid of non-ionogenic deemulsifiers. In the processing of sulfurous crude

Card 1/2

L 19170-63
ACCESSION NR: AR3005142

oils it is advisable to use materials resistant to corrosion by sulfur compounds. In the process of using the old equipment made of carbon steel, corrosion is reduced by the introduction of so-called film-type inhibitors into the vapors emerging from the distillation equipment. World and domestic experience in combatting the corrosiveness of petroleum products shows that the most promising measure is the addition of the appropriate supplements. Experiments in this area are being conducted in Czechoslovakia largely on a laboratory scale. The first and most interesting experiments involved colloidal supplements against vanadium corrosion and complex supplements of the anthranyl acid type. Bibliography with five titles.

DATE ACQ: 24Jul63 SUB CODE: FL, ML ENCL: 00

Card 2/2

KORCHEMKIN, A.; PEVZNER, S.

Training young drivers in transportation work. Avt.transp. 39 no.1:52 Ja '61. (MIRA 14:3)
(Automobile drivers)

KONDASHEVSKIY, V.V., dotsent, kand.tekhn.nauk; KORCHEMKIN, A.D., assistent

Replacing springs by a weight in active control systems. Vzaim.i tekh.izm v mashinostr.;mezhvuz.sbor. no.2:499-505 '60.
(MIRA 13:8)

(Automatic control)

19600

S/123/61/000/005/004/017
A004/A104

AUTHORS: Kondashevskiy, V. V., Korchemkin, A. D., Pantyukhov, I. V., Bukhorukov, Yu. N.

TITLE: Mechanization and automation of component checking during the grinding process

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 5, 1961, 37, abstract 5B334. ("Tr. Omskogo mashinostroit. in-ta", 1959, no. 3, 113-127)

TEXT: The authors describe the designs of active checking devices and present the circuits of: suspension-type three-pronged indicator gap gage; indicator gap gage with rod; indicator gap gage with a lever suspended on flat steel springs positioned in the form of a cross; indicator gap gage with a lever suspended on a flat steel spring; lever-type indicating device for the checking of holes; lever-type device for the checking of components with profiled surfaces. There are 10 figures.

E. Dymova

[Abstractor's note: Complete translation]

Card 1/1

SIDOROV, Nikolay Yemel'yanovich; KORCHEMKIN, A.M.; KOLESOV, A.P.

[Trichomoniasis of the urogenital organs in man] Trikhomoniaz mochepolovykh organov cheloveka. Moskva, Medgiz, 1959. 154 p. (MIRA 13:2)

(TRICHOMONIASIS) (GENITO-URINARY ORGANS--DISEASES)